

## WHAT IS CLAIMED IS:

- 1    1.    A method comprising:
  - 2            determining if a device emits electromagnetic interference (EMI) in one or
  - 3            more regions of an electromagnetic spectrum occupied by other
  - 4            users; and
  - 5            if it is determined that the device emits EMI in one or more regions of the
  - 6            electromagnetic spectrum occupied by other users:
  - 7            reducing the EMI in the one or more regions; and
  - 8            increasing the EMI in one or more other regions of the
  - 9            electromagnetic spectrum that are unoccupied by the other
  - 10          users.
- 1    2.    The method of claim 1, wherein said reducing the EMI in the one or more
- 2            regions comprises removing the EMI from the one or more regions.
- 1    3.    The method of claim 1, wherein said method comprises determining if the
- 2            device unintentionally emits EMI in one or more regions of an
- 3            electromagnetic spectrum occupied by other users, and comprises
- 4            reducing the EMI in the one or more regions, and increasing the EMI in
- 5            one or more other regions if it is determined that the device unintentionally

6 emits EMI in one or more regions of an electromagnetic spectrum  
7 occupied by other users.

1 4. The method of claim 3, wherein the device unintentionally emits EMI in  
2 one or more regions of a radio frequency spectrum occupied by licensed  
3 users, and said increasing the EMI results in increasing the EMI in one or  
4 more other regions of the radio frequency spectrum that are unoccupied  
5 by the licensed users.

1 5. The method of claim 1, wherein said determining if the device emits EMI in  
2 one or more regions of the electromagnetic spectrum occupied by other  
3 users comprises:  
4 determining a presence of other users at the device's location; and  
5 determining the one or more regions of the electromagnetic spectrum  
6 occupied by the other users at the location.

1 6. The method of claim 5, wherein said determining the presence of other  
2 users at the device's location comprises:  
3 determining a location of the device; and  
4 accessing a database of users at the location.

1 7. The method of claim 5, wherein said determining the presence of other  
2 users at the device's location comprises listening for the presence of other  
3 users.

1 8. The method of claim 5, wherein said determining the presence of other  
2 users at the location comprises determining the presence of other users  
3 licensed at the location.

1 9. A method comprising: ~  
2 determining if a device emits electromagnetic interference (EMI) in the  
3 presence of other users in an electromagnetic spectrum; and  
4 if it is determined that the device emits EMI in the presence of other users  
5 in the electromagnetic spectrum;  
6 determining if the device's current location is the same as the  
7 device's previous location; and  
8 if the current location is the same as the previous location:  
9 reducing the EMI in one or more regions of the  
10 electromagnetic spectrum occupied by the other  
11 users; and

12                                increasing the EMI in one or more other regions of the  
13                                electromagnetic spectrum unoccupied by the other  
14                                users.

1    10.    The method of claim 9, additionally comprising if the current location is not  
2           the same as the previous location:

3           determining one or more regions of the electromagnetic occupied by the  
4           other users;

5           reducing the EMI in the one or more regions; and

6           increasing the EMI in one or more other regions of the electromagnetic  
7           spectrum unoccupied by the other users.

1    11.    The method of claim 9, wherein said method comprises determining if the  
2           device unintentionally emits EMI in the electromagnetic spectrum.

1    12.    The method of claim 11, wherein the device unintentionally emits EMI in  
2           the presence of licensed users in a radio frequency spectrum, and said  
3           increasing the EMI results in increasing the EMI in one or more other  
4           regions of the radio frequency spectrum that are unoccupied by the  
5           licensed users.

1    13.    A method comprising:                                7  
2           determining if a device emits electromagnetic interference (EMI) in  
3           unacceptable levels in one or more regions of an electromagnetic

4 spectrum; and  
5 if it is determined that a device emits electromagnetic interference (EMI) in  
6 unacceptable levels in one or more regions of an electromagnetic  
7 spectrum:  
8 reducing the EMI in the one or more regions; and  
9 increasing the EMI in one or more other regions of the  
10 electromagnetic spectrum unoccupied by the other users.

1 14. The method of claim 13, wherein the device is a non-communications  
2 device.

1 15. The method of claim 13, wherein the electromagnetic spectrum comprises  
2 a radio frequency spectrum.

1 16. An apparatus comprising:  
2 circuitry capable of determining if a device emits electromagnetic  
3 interference (EMI) in one or more regions of an electromagnetic  
4 spectrum occupied by other users; and  
5 if it is determined that the device emits EMI in the one or more regions of  
6 an electromagnetic spectrum occupied by other users, the circuitry  
7 additionally capable of:  
8 reducing the EMI in the one or more regions; and  
9 increasing the EMI in one or more other regions of the

10 electromagnetic spectrum unoccupied by the other users.

1 17. The apparatus of claim 16, wherein said circuitry is additionally capable of  
2 removing the EMI from the one or more regions.

1 18. The apparatus of claim 16, wherein said circuitry is additionally capable of  
2 determining if the device unintentionally emits EMI in one or more regions  
3 of an electromagnetic spectrum occupied by other users, and of reducing  
4 the EMI in the one or more regions, and increasing the EMI in one or more  
5 other regions if the circuitry determines that the device unintentionally  
6 emits EMI in one or more regions of an electromagnetic spectrum  
7 occupied by other users.

1 19. The apparatus of claim 18, wherein the device unintentionally emits EMI in  
2 one or more regions of a radio frequency spectrum occupied by licensed  
3 users, and said circuitry is additionally capable of increasing the EMI in  
4 one or more other regions of the radio frequency spectrum unoccupied by  
5 the licensed users.

1 20. The apparatus of claim 16, wherein said circuitry is additionally capable of:  
2 determining a presence of other users at the device's location; and  
3 determining the one or more regions of the electromagnetic spectrum  
4 occupied by the other users at the location.

1 21. The apparatus of claim 20, wherein said circuitry is additionally capable of:

2       determining a location of the device; and  
3       accessing a database of users at the location.

1   22.   A system comprising:

2       a communications device to emit EMI; and

3       circuitry capable of:

4             determining if the communications device emits electromagnetic

5             interference (EMI) in one or more regions of an

6             electromagnetic spectrum occupied by other users; and

7             if it is determined that the communications device emits EMI in the

8             one or more regions of an electromagnetic spectrum

9             occupied by other users:

10            reducing the EMI in the one or more regions; and

11            increasing the EMI in one or more other regions of the

12            electromagnetic spectrum unoccupied by the other

13            users.

1   23.   The system of claim 22, wherein said circuitry is additionally capable of  
2       removing the EMI from the one or more regions.

1   24.   The system of claim 22, wherein said circuitry is additionally capable of  
2       determining if the communications device unintentionally emits EMI in one  
3       or more regions of an electromagnetic spectrum occupied by other users,

4 and of reducing the EMI in the one or more regions, and increasing the  
5 EMI in one or more other regions if the circuitry determines that the  
6 communications device unintentionally emits EMI in one or more regions  
7 of an electromagnetic spectrum occupied by other users.

1 25. The system of claim 24, wherein the communications device  
2 unintentionally emits EMI in one or more regions of a radio frequency  
3 spectrum occupied by licensed users, and said circuitry is additionally  
4 capable of increasing the EMI in one or more other regions of the radio  
5 frequency spectrum that are unoccupied by the licensed users.

1 26. The system of claim 22, wherein said circuitry is additionally capable of:  
2 determining a presence of other users at the device's location; and  
3 determining the one or more regions of the electromagnetic spectrum  
4 occupied by the other users at the location

1 27. A machine-readable medium having stored thereon instructions, the (c)  
2 instructions when executed by a machine, result in the following:  
3 determining if a device emits electromagnetic interference (EMI) in one or  
4 more regions of an electromagnetic spectrum occupied by other  
5 users; and

6 if it is determined that the device emits EMI in one or more regions of the  
7 electromagnetic spectrum occupied by other users:

8 reducing the EMI in the one or more regions; and



9                   increasing the EMI in one or more other regions of the  
10                   electromagnetic spectrum that are unoccupied by the other  
11                   users.

1   28.   The machine-readable medium of claim 27, wherein the instructions, when  
2           executed by a machine, that result in reducing the EMI in the one or more  
3           regions additionally result in removing the EMI from the one or more  
4           regions.

1   29.   The machine-readable medium of claim 27, wherein the instructions, when  
2           executed by a machine, that result in determining if the device emits EMI  
3           additionally result in determining if the device unintentionally emits EMI in  
4           one or more regions of an electromagnetic spectrum occupied by other  
5           users, and in reducing the EMI in the one or more regions, and increasing  
6           the EMI in one or more other regions if it is determined that the device  
7           unintentionally emits EMI in one or more regions of an electromagnetic  
8           spectrum occupied by other users.

1   30.   The machine-readable medium of claim 29, wherein the device  
2           unintentionally emits EMI in one or more regions of a radio frequency  
3           spectrum occupied by licensed users, and wherein the instructions, when  
4           executed by a machine, that result in increasing the EMI additionally result  
5           in increasing the EMI in one or more other regions of the radio frequency  
6           spectrum that are unoccupied by the licensed users.